



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

English [S1AiR1E>JAng2]

### Course

Field of study

Automatic Control and Robotics

Year/Semester

2/3

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

English

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

60

Projects/seminars

0

### Number of credit points

7,00

### Coordinators

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### Lecturers

### Prerequisites

Knowledge: The already acquired language competence compatible with level B1 (CEFR) Skills: The ability to use vocabulary and grammatical structures required on the high school graduation exam with regard to productive and receptive skills Social Competences: The ability to work individually and in a group; the ability to use various sources of information and reference works

### Course objective

1. Advancing student's language competence towards at least level B2 (CEFR) 2. Developing the ability to use academic and field specific language effectively in both receptive and productive language skills 3. Improving the ability to understand field specific texts (familiarizing students with basic translation techniques) 4. Improving the ability to function effectively on an international market and on a daily basis

### Course-related learning outcomes

As a result of the course, the student ought to acquire field specific vocabulary related to the following issues:

1. Automatic control - [-]

2. Building Management System - [-]

3. Robotics - [-]
4. Robots - [-]
5. Tests and experiments in technology - [-]
6. Discussing relative performance - [-]
7. Recent developments in IT - [-]
8. Recent developments in robotics - [-]
9. and to be able to define and explain associated terms, phenomena and processes - [-]

Skills As a result of the course, the student is able to:

1. give a talk on field specific or popular science topic (in English), and discuss general and field specific issues using an appropriate linguistic and grammatical repertoire - [K\_U01 K\_U05]
2. express basic mathematical formulas and to interpret data presented on graphs / diagrams - [K\_U07]
3. formulate a text in English where he/she explains/describes a selected specific topic - [K\_U07]

Social competences As a result of the course, the student is able to:

1. communicate effectively in a field specific / professional area, and to give a successful presentation in English - [K\_K01 K\_K04]
2. recognize and understand cultural differences in a professional and private conversation, and in a different cultural environment - [K\_K02]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment: formal coursework assignments (presentations, tests)

Summative assessment: final exam (written and oral)

### Programme content

1. Building Management System
2. Industrial robot.
3. Robots: types, structure and ways of locomotion
4. Intelligent homes
5. Computer models and simulations.
6. Performance and suitability (wind turbines)
7. Discussing relative performance
8. Recent developments in IT.
9. General topics: general oral topics required for the oral part of the final examination
10. Elements of grammar
11. Guided writing selected topics

### Course topics

1. Describing automated system (Building Management System / BMS)
2. Measurable parameters / discussing readings and trends / giving approximate figures
3. Industrial robot; its work volume and degree of freedom
4. Robots: types, structure and ways of locomotion / robot basics / robotic arm
5. Intelligent homes: control devices and networking / automatic operations
6. Computer models and simulations; types of tests in technology
7. Discussing performance and suitability (wind turbines)
8. Discussing relative performance (high-speed trains)
9. Recent developments in IT (intelligent materials, cars, robots)
10. General topics: general oral topics required for the oral part of the final examination
11. Elements of grammar
12. Guided writing selected topics

### Teaching methods

1. presentation, analysis of topics/problems shown on the board, lexical and grammatical tasks
2. discussion, teamwork, multimedia slide show, team project
3. student's individual work

### Bibliography

Basic:

1. Ibbotson, Mark. 2008. Cambridge English for Engineering. Cambridge: Cambridge University Press

Additional:

1. Glendinning, Eric H. and Glendinning, Norman. 1995. Oxford English for Electrical and Mechanical Engineering. Oxford: Oxford University Press

2. Esteras, Santiago Ramacha and Fabre, Elena Marco. 2007. Professional English in Use for Computers and the Internet. ICT. Cambridge: Cambridge University Press

3. Glendinning, Eric. 2009. Oxford English for Information Technology. Oxford: Oxford University Press

### Breakdown of average student's workload

	Hours	ECTS
Total workload	175	7,00
Classes requiring direct contact with the teacher	62	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	113	4,50